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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------------------|-----------------------------|
| 10/553,153 | 02/07/2006 | Andrew Goldsmith | 3165-138 | 9052 |
| 6449 7590 09/11/2007 ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005 | | | EXAMINER PRYOR, ALTON NATHANIEL | |
| | | | ART UNIT 1616 | PAPER NUMBER |
| | | | NOTIFICATION DATE 09/11/2007 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary

Application No.

10/553,153

Applicant(s)

GOLDSMITH, ANDREW

Examiner

Alton N. Pryor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-24 and 26-29 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's arguments filed 6/1/07 have been fully considered but they are not persuasive. See discussion below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-24,26-29 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Koppenhagen et al (WO 0005951; 2/10/00) and Martin (EP 279068; 08/24/88). Koppenhagen teaches an aqueous (flowable) composition comprising pesticides such as herbicides, which control weed growth in plants. See abstract, page 1, 2nd paragraph, page 15, 1st full paragraph, page 6, 1st full paragraph. Koppenhagen teaches the encapsulated material comprising a surfactant. See page 6, 1st full paragraph. Koppenhagen teaches that the surface active (surfactant) can be any wide variety of compound known to lower the surface tension of a fluid interface, including both nonionic and anionic surfactants. See page 17, 2nd full paragraph. Koppenhagen teaches the use of a resin of urea-formaldehyde polymer for encapsulating the herbicide. See page 16, 1st full paragraph – 3rd full paragraph. Koppenhagen teaches a capsule suspension containing two materials with one material being encapsulated and the other contained in the aqueous phase. See page 23, 1st paragraph, claims 1,29-32. Koppenhagen does not teach pendimethalin as the herbicide and the instant ratio of

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microencapsulated pendimethalin to non-encapsulated pendimethalin. However, Martin teaches that pendimethalin is a herbicides. Therefore it would have been obvious to one having ordinary skill in the art to make a flowable composition comprising both encapsulated and non-encapsulated pendimethalin. One would have been motivated to do this because Koppenhagen broadly teaches the making of an aqueous composition comprising both an encapsulated and non-encapsulated herbicide. Additional motivation would be the production of a composition that would have an immediate to longer effect on weed control in plants. With respect to the ratio and amounts / concentration of ingredients, one having ordinary skill in the art would have been motivated to determine the optimum amount of each ingredient of the instant invention. One would have been motivated to do in order to develop an invention that would have been effective at controlling weeds without destroying the desired plant. In the absence of unexpected results for the instant surfactants, Koppenhagen makes the instant surfactants obvious. Note Koppenhagen is open to a wide variety of anionic and nonionic surfactants including the instant surfactants absent a showing of the criticality of the instant surfactants.

Response to Applicants' argument

The Applicants argue:

The combination of Koppenhagen and Martin would not render obvious the present invention and that one of ordinary skill would not have a reasonable expectation of success in combining the disclosures of Koppenhagen and Martin to arrive at the present invention.

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The capsule suspension contains two materials that are incompatible with each other. In other words, Koppenhagen teaches an aqueous composition comprising two different materials, one of which is encapsulated and the other which is an aqueous phase.

Koppenhagen only uses the disclosed arrangement because the two pesticides in the aqueous composition are incompatible. There would be no advantage to use the same pesticide both inside and outside the capsule of Koppenhagen.

With respect to instant invention, aqueous flowable compositions suffer from a poor storage stability since pendimethalin tends to form large crystals upon aging, which results in an increased settling of pendimethalin particles (page 1, lines 16-25).

The inventors of instant invention found that it is not necessary to completely encapsulate each particle of pendimethalin to obtain good storage stability of the aqueous flowable composition of the present invention. But that only a portion of the non-encapsulated pendimethalin particles of the present invention needs to be encapsulated in the composition to achieve a storage stability comparable to the storage stability of an aqueous flowable composition containing exclusively microencapsulated pendimethalin. Applicant refers the Examiner to page 11, table 1 of the instant specification for storage stability at 45 degree C of conventional suspension concentrate versus instant composition having both encapsulated and non-encapsulated pendimethalin.

The examiner argues that Martin is only used to point that pendimethalin is a herbicide since Koppenhagen teaches herbicides broadly without a specific reference to

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pendimethalin. Although Koppenhagen teaches a combination of two incompatible ingredients, one of which is encapsulated and the other which is nonencapsulated, it would have been advantageous to make a composition comprising same material where a portion of material is encapsulated and the other portion is nonencapsulated at the time of Koppenhagen's invention. One would have been motivated to do this in order to make composition that would have both control and immediate release of the same active. Referring to results on page 11 in table 1, there appears to be no significant difference in the storage stability of instant composition comprising both encapsulated and nonencapsulated pendimethalin in comparison to the convention suspension comprising only nonencapsulated pendimethalin or a composition comprising exclusively encapsulated pendimethalin.

Claim Objection

Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not teach or suggest a composition comprising the instant amount of each ingredient as expressed in the claim.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephonic Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alton N. Pryor whose telephone number is 571-272-0621. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

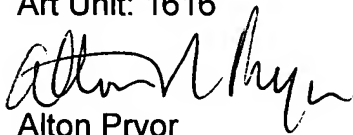
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in black ink, appearing to read 'Alton Pryor', written in a cursive style.

Alton Pryor

Primary Examiner

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